Monitoring and Operating a Private Cloud with System Center 2012 (10750) H7G37S

Course Overview

In this course, you will receive an overview of a private cloud infrastructure, the business and technical drivers behind the implementation, and how System Center 2012 can be used to monitor and operate the private cloud infrastructure. Through hands-on exercises you will gain the skills to configure and optimize a new business unit cloud, deploy pre-packaged applications, and create a new service template to deploy a service into the cloud. You will also learn how System Center Operations Manager is used to monitor the various services that underpin the private cloud. You will gain insight into the Application Performance Monitoring (APM) feature of Operations Manager to monitor the performance and availability of an application. You will learn the core functionality of Service Manager and achieve the skills to create and manage change requests, incidents, and release records as well as the security model behind Service Manager.

Special Notes

Elements of this syllabus are subject to change.

Audience

This course is intended for:

- IT Professionals who are responsible for monitoring and protecting the private cloud infrastructure
- Individuals providing and provisioning applications and/or those that must create and/or implement service requests

Prerequisites

- Windows Server 2008 R2
- Active Directory Domain Services (AD DS)
- Networking experience
- Experience with previous versions of System Center products
- Configuration of Microsoft SharePoint
- Hyper-V
- Data center management processes
- Storage Area Network (SAN) knowledge
Course objectives

After completing this course, students will be able to:

- Private cloud infrastructure
- Configure and optimize business unit clouds
- Deploy cloud services
- Monitor private cloud services
- Configure application performance monitoring
- Operate and extend service management in the private cloud
- Implement problem management in the private cloud
- Automate incident creation, remediation, and change requests
- Automate self service provisioning
- Protect the resources in the private cloud by using Data Protection Manager
- Configure compliance in the private cloud
- Configure Service Level Agreements (SLAs), dashboards, and widgets
- Optimize cloud resources

Course outline

Private Cloud

- Cloud Computing Model
- Requirements for the Private Cloud
- Operating a Private Cloud Infrastructure with System Center
- Maintaining the Health of the Private Cloud
- Health and Configuration of System Center
- Compliance of the Private Cloud Infrastructure

Configuring and Optimizing Business Unit Clouds

- System Center 2012 Virtual Machine Manager
- Managing a Virtual Environment with Virtual Machine Manager
- Creating Business Unit Clouds

Deploying Cloud Services

- Service Templates
- VMM Profiles
- Web Deploy Packages
- Server App-V
- Data-Tier Application Packages

Monitoring Private Cloud Services

- System Center 2012 Operations Manager
- Agent Deployment in Operations Manager
- Configuring Custom Monitoring
- Monitoring the Network Infrastructure
- Monitoring Distributed Applications
Configuring Application Performance Monitoring
- Application Performance Monitoring
- Advanced Monitoring in Application Performance Monitoring
- Viewing Application Performance Data in Operations Manager

Operating and Extending Service Management in the Private Cloud
- Service Manager
- Configuring Security and User Roles
- Configuring Work Items
- Configuring Incident Queues
- Configuring Service Offerings

Automating Incident Creation, Remediation, and Change Requests
- System Center Orchestrator 2012
- Integrating Orchestrator with Operations Manager and Service Manager

Problem Management in the Private Cloud
- Problem Management
- Creating Custom Rules

Automating Self Service Provisioning
- Installing and Configuring the System Center Cloud Services Process
- Cloud Services Configuration Items
- Cloud Services Request Items

Private Cloud Protection and Recovery
- Protecting Data in the Private Cloud
- Recovering Data in the Private Cloud

Configuring Compliance in the Private Cloud
- IT Governance, Risk, and Compliance (IT GRC) Process Pack
- Installing and Configuring the IT GRC Process Pack
- Implementing an IT GRC Control Management Program
- Maintaining Compliance Through VMM Security Baselines and System Center Advisor

Configuring SLAs, Dashboards, and Widgets
- Service Level Tracking
- Configuring and Deploying Widgets and Dashboards
- Publishing Real-Time State with Microsoft Visio
- System Center Analytics
- Using Excel and SSRS to View Data
- PerformancePoint

Labs

Lab 1: Verify the Private Cloud Infrastructure
- Verify the Infrastructure
- Verify System Center Components
Lab 2: Configure and Optimize Business Unit Clouds
- Configure Network Resources
- Create a Business Unit Cloud
- Configure Security

Lab 3: Import and Deploy the StockTrader Application
- Configure Prerequisites
- Prepare the StockTrader Service Template
- Deploy the Service Template

Lab 4: Monitor Private Cloud Services
- Agent Deployment
- Configure Custom Monitoring
- Create a Distributed Application Model
- Detect and Recover From a Failure

Lab 5: Configure Application Performance Monitoring
- Configure Basic Monitoring in Application Performance Monitoring
- Customize the Performance Thresholds
- Validate Monitoring
- Create a Distributed Application Model for the DinnerNow Application

Lab 6: Operate and Extend Service Management in the Private Cloud
- Configure Security Roles
- Configure Notifications
- Publish an Incident Service Offering
- Raise an Incident
- Create and Approve a Change Request
- Create and Assign a Release Record

Lab 7: Automate Incident Creation, Remediation, and Change Requests
- Configure the Incident Template
- Configure Incidents that Affect the StockTrader Service
- Automate Incident Remediation and Change Requests

Lab 8: Automate Incident Creation, Remediation, and Change Requests
- Manually Create a Problem Record
- Create a Custom Event Rule in Operations Manager
- Configure Automated Problem Record Creation

Lab 9: Automate Self Service Provisioning
- Configure the System Center Cloud Services Process Pack
- Configure Services Roles and Settings
- Create a Cloud Service Offering
- Request a Project
- Create a Capacity Pool
- Submit a Service Request
Lab 10: Private Cloud Protection and Recovery
- Configure Manual Protection and Recovery of Key Service Data
- Configure Automatic Protection and Recovery of Key Service Data
- Monitor Protection Status

Lab 11: Configure Compliance in the Private Cloud
- Create an IT GRC Control Management Program
- Add Test Results to Manual Control Activity and View Compliance Reports
- Create Baselines

Lab 12: Configure SLAs, Dashboards, and Widgets
- Configure Service Level Tracking
- Configure Service Level Management

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